

Application No.: 10/822230

Docket No.: BSZ-050

AMENDMENTS TO THE CLAIMS

1-36. (cancelled)

37. (previously presented) A composition comprising one or more cochleates made by a method comprising:

introducing a cargo moiety to a liposome in the presence of a solvent such that the cargo moiety associates with the liposome; and
precipitating the liposome to form a cargo moiety-cochleate.

38-52. (cancelled)

53. (original) A composition comprising an anhydrous cochleate.

54. (original) The composition of claim 53, wherein the cochleate comprises a negatively charged lipid, a protonized cargo moiety, and a divalent metal cation.

55. (original) The composition of claim 54, wherein the protonized cargo moiety is water soluble.

56. (original) The composition of claim 54, wherein the protonized cargo moiety is a protonized weakly basic cargo moiety.

57. (original) The composition of claim 54, wherein the protonized cargo moiety is a multivalent cation.

58. (original) The composition of claim 54, wherein the protonized cargo moiety is a protonized peptide.

59. (original) The composition of claim 58, wherein the protonized cargo moiety is a protonized protein.

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60. (original) The composition of claim 54, wherein the protonized cargo moiety is a protonized nucleotide.
61. (original) The composition of claim 60, wherein the protonized nucleotide is at least one member selected from the group consisting of a protonized DNA, a protonized RNA, a protonized morpholino, a protonized siRNA molecule, a protonized ribozyme, a protonized antisense molecule, and a protonized plasmid.
62. (original) The composition of claim 54, wherein the protonized cargo moiety is an aminoglycoconjugate.
63. (original) The composition of claim 54, wherein the protonized cargo moiety is a protonized aminoglycoside or a protonized aminoglycopeptide.
64. (original) The composition of claim 63, wherein the protonized cargo moiety is at least one member selected from the group consisting of protonized vancomycin, teicoplanin, bleomycin, peptidoglycan, ristocetin, sialoglycoproteins, orienticin, avaporcin, hevecardin, galacardin, actinoidin, gentamycin, netilmicin, tobramycin, amikacin, kanamycin A, kanamycin B, neomycin, paromomycin, neamine, streptomycin, dihydrostreptomycin, apramycin, ribostamycin, spectinomycin, and combinations thereof.
65. (original) The composition of claim 54, wherein the protonized cargo moiety is a protonized echinocandin.
66. (original) The composition of claim 65, wherein the protonized cargo moiety is at least one member selected from the group consisting of protonized caspofungin, echinocandin B, aculeacin A, micafungin, anidulafungin, cilofungin, pneumocandin and combinations thereof.
67. (original) The composition of claim 54, wherein the ratio of protonized cargo moiety to lipid is about 2:1 by weight.

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68. (original) The composition of claim 54, wherein the ratio of protonized cargo moiety to lipid is between about 4:1 and about 10:1 by weight.
69. (currently amended) The composition of claim ~~[[53]]~~54, further comprising a second protonized cargo moiety.
70. (original) The composition of claim 53, further comprising a cargo moiety.
71. (original) The composition of claim 70, wherein the cargo moiety is a nutrient.
72. (original) The composition of claim 71, wherein the nutrient is Vitamin E.
73. (original) The composition of claim 54, wherein the divalent metal cation is barium or calcium.
74. (original) The composition of claim 53, further comprising an aggregation inhibitor.
75. (original) The composition of claim 74, wherein the aggregation inhibitor comprises at least one aggregation inhibitor selected from the group consisting of casein, methylcellulose, albumin, serum albumin, bovine serum albumin and rabbit serum albumin.
76. (original) The composition of claim 54, wherein the lipid comprises a phospholipid.
77. (original) The composition of claim 54, wherein the lipid comprises at least one phospholipid selected from the group consisting of a dioleoylphosphatidylserine (DOPS) and a phosphatidylserine (PS).
78. (previously presented) A pharmaceutical composition comprising the composition of claim 53 and a pharmaceutically acceptable carrier.

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79-114. (cancelled)

115. (original) A cochleate composition comprising:
a plurality of cochleates; and
an aggregation inhibitor.
116. (original) The composition of claim 115, further comprising a cargo moiety.
117. (original) The composition of claim 115, wherein the aggregation inhibitor coats the cochleate.
118. (original) The composition of claim 115, wherein the aggregation inhibitor is at least one aggregation inhibitor selected from the group consisting of a protein, a peptide, a polysaccharide, a milk or milk product, a polymer, a gum, a wax and a resin.
119. (original) The composition of claim 115, wherein the aggregation inhibitor comprises at least one aggregation inhibitor selected from the group consisting of: casein, κ -casein, milk, albumin, serum albumin, bovine serum albumin, rabbit serum albumin, methylcellulose, ethylcellulose, propylcellulose, hydroxycellulose, hydroxymethyl cellulose, hydroxyethyl cellulose, hydroxypropyl cellulose, hydroxypropylmethyl cellulose, polyvinyl pyrrolidone, carboxymethyl cellulose, carboxyethyl cellulose, pullulan, polyvinyl alcohol, sodium alginate, polyethylene glycol, polyethylene oxide, xanthan gum, tragacanth gum, guar gum, acacia gum, arabic gum, polyacrylic acid, methylmethacrylate copolymer, carboxyvinyl polymer, amylose, high amylose starch, hydroxypropylated high amylose starch, dextrin, pectin, chitin, chitosan, levan, elsinan, collagen, gelatin, zein, gluten, carrageenan, carnauba wax, shellac, latex polymers, milk protein isolate, soy protein isolate, and whey protein isolate.
120. (original) The composition of claim 115, wherein the aggregation inhibitor comprises at least one aggregation inhibitor selected from the group consisting of casein, methylcellulose, albumin, serum albumin, bovine serum albumin and rabbit serum albumin.

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121. (original) The composition of claim 115, wherein the plurality of cochleates has a mean diameter of less than about 600 nm.
122. (original) The composition of any one of claim 115, wherein the plurality of cochleates has a mean diameter of less than about 500 nm.
123. (original) The composition of any one of claim 115, wherein the size distribution of the plurality of cochleates is less than about 700 nm.
124. (original) The composition of any one of claim 115, wherein the size distribution of the plurality of cochleates is less than about 550 nm.
- 125-141. (cancelled)
142. (previously presented) The composition of claim 116, wherein the cochleate further comprises an antifungal drug.
143. (original) The composition of claim 142, wherein the antifungal drug is at least one member selected from the group consisting of Amphotericin B, miconazole nitrate, ketoconazole, itraconazole, fluconazole, griseofulvin, clotrimazole, econazole, terconazole, butoconazole, oxiconazole, sulconazole, saperconazole, voriconazole, ciclopirox olamine, haloprogin, tolnaftate, naftifine, terbinafine hydrochloride, morpholines, flucytosine, natamycin, butenafine, undecylenic acid, Whitefield's ointment, propionic acid, caprylic acid, clioquinol, nystatin, selenium sulfide, caspofungin, echinocandin B, aculeacin A, micafungin, anidulafungin, cilofungin, and pneumocandin.
144. (original) The composition of claim 142, wherein the aggregation inhibitor comprises at least one aggregation inhibitor selected from the group consisting of casein, methylcellulose, albumin, serum albumin, bovine serum albumin and rabbit serum albumin.

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145. (original) The composition of claim 142, wherein the antifungal is Amphotericin B and the aggregation inhibitor comprises methylcellulose.
146. (original) The composition of claim 142, wherein the composition is in the form of a nasal spray.
147. (original) A cochleate composition comprising a first plurality of cochleates with a first mean particle size and a second plurality of cochleates with a second mean particle size, wherein the second mean particle size is different from the first mean particle size.
148. (original) The composition of claim 147, further comprising at least one cargo moiety.
149. (original) The composition of claim 147, wherein the first plurality of cochleates and the second plurality of cochleates comprise the same cargo moiety.
150. (original) The composition of claim 147, wherein the first plurality of cochleates contains a different cargo moiety than the second plurality of cochleates.
151. (original) The composition of claim 147, further comprising a third plurality of cochleates with a third mean particle size, wherein the third mean particle size is different from both the first and the second mean particle sizes.
152. (original) The composition of claim 151, further comprising a cargo moiety.
153. (cancelled)
154. (original) A pharmaceutical composition comprising the cochleate or cochleate composition of claim 115 and a pharmaceutically acceptable carrier.
- 155-211. (cancelled)